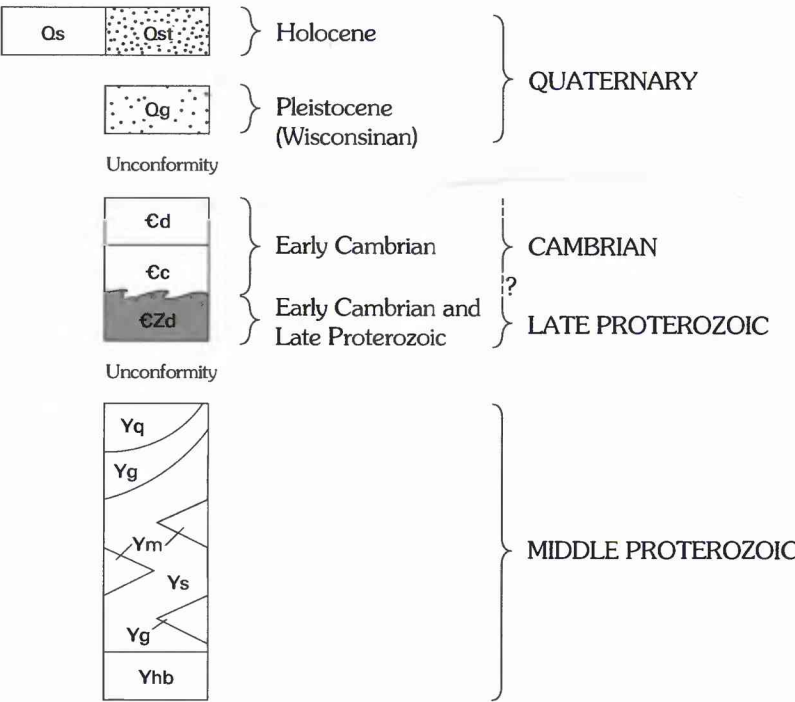


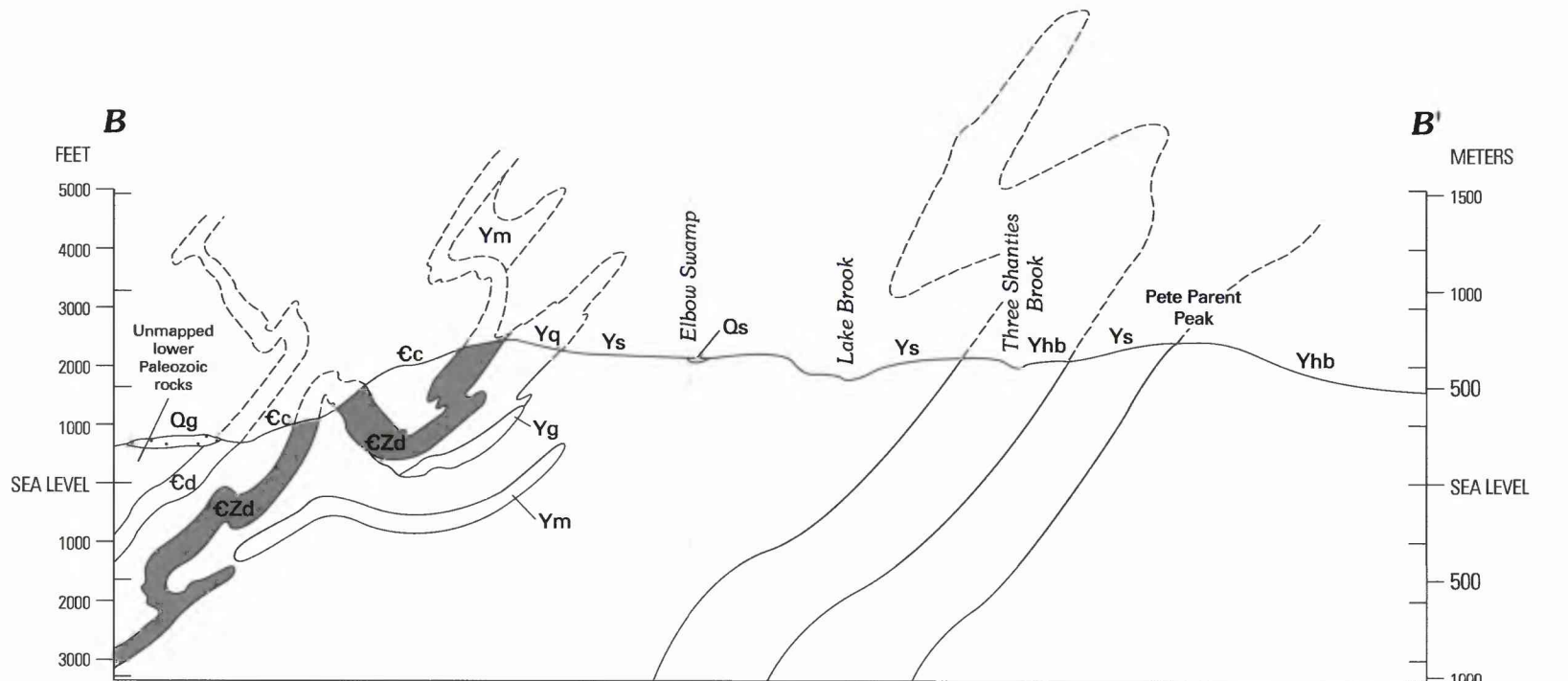
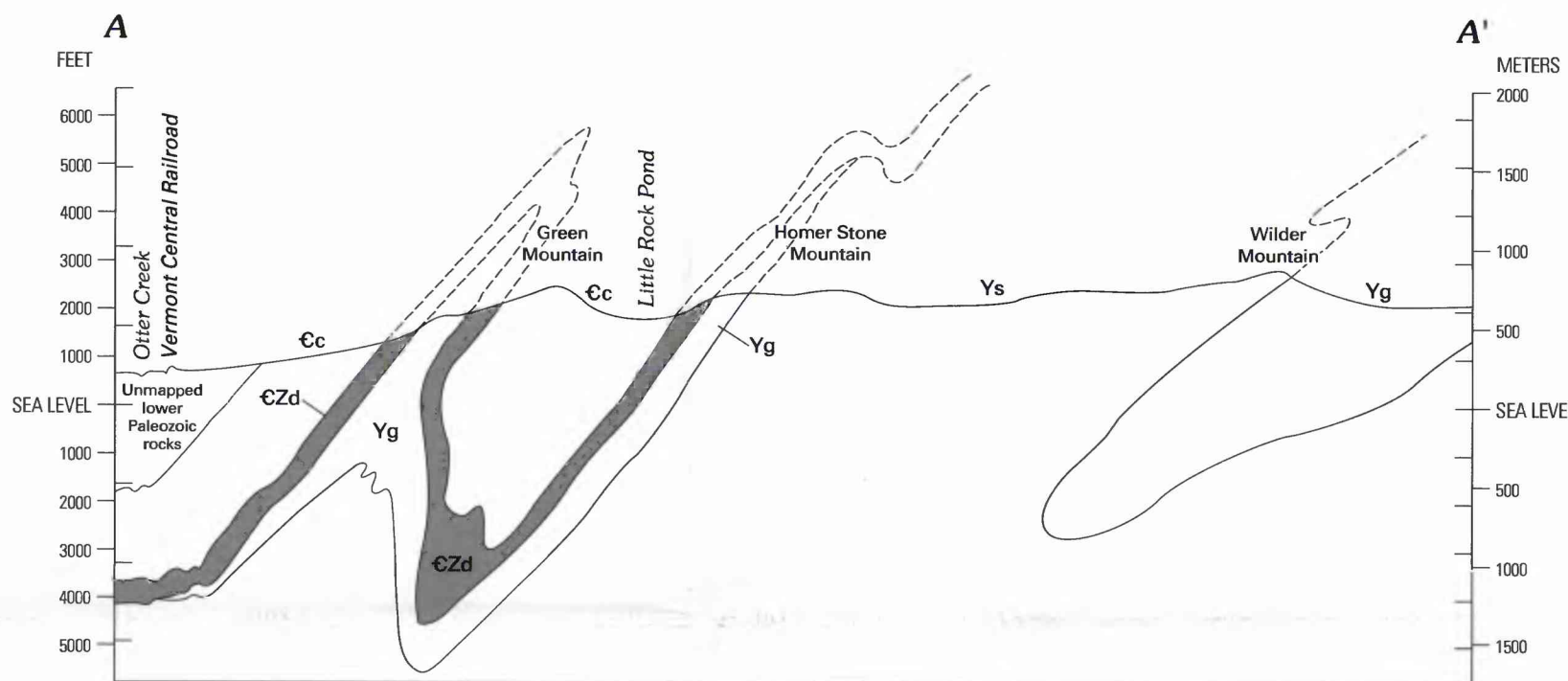
CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

A mantle of wind-deposited pale-yellowish-orange to light-brown fine sand and silt is present over the map area but is not shown. This eolian mantle is as thick as 3-4 ft on the lower parts of slopes over glacial till. Glacial till is a poorly sorted, nonlayered, and nonbedded to foliated and bedded mixture of particles from clay to boulder size. It forms a blanket mostly 9-18 ft thick over most of the area but is thin to absent in areas of abundant bedrock exposures. Most till is silt rich, compact, yellow brown, foliated, and layered. Looser, sandier till makes up hummocks in the Swale Meadow area and along the mid-reaches of Ten Kilns and Big Black Brooks.

- Qs** Swamp deposits (Holocene)—Chiefly silt, sand, and clay mixed with variable amounts of muck, peat, and organic debris in poorly drained areas
- Qst** Stream terrace deposits (Holocene)—Chiefly gravel, sand, and silt in thin (9 ft) terraces along modern streams
- Og** Glacial stream deposits (Pleistocene, Wisconsinian)—Gravel and sand in meltwater stream deposits mostly less than 10-30 ft thick. Deposited in and around stagnant ice blocks by glacial meltwater streams whose courses were only partly integrated with the present topography
- Cd** Dunham Dolomite of Doll and others (1961) (Early Cambrian)—Thinly layered, gray- to buff-weathering dolomite with thin sandy partings
- Cc** Cheshire Quartzite (Early Cambrian)—Mostly white- to buff-weathering, thin- to massive-layered (1 in-6 ft) orthoquartzite and sugary-textured quartz metasediment; lesser vitreous quartzite, micaceous quartzite, and argillaceous quartzite. Rare laminae are locally rich in biotite. Quartzite is locally ankeritic and appears massively vitric where relic bedding is obscured by tight folding. Lower part is thinly layered with partings of micaceous quartzite and rare, thin, dark phyllite
- CZd** Dalton Formation (Early Cambrian and Late Proterozoic)—Chiefly feldspathic metasandstone, micaceous metasandstone, and metagraywacke. Less abundant gray pyritic quartzite, micaceous quartzite, fine-grained, graphitic muscovite phyllite, and grayish-green, fine-grained muscovite-chlorite schist. Unit includes local basal lenses of polymict boulder and pebble conglomerate as well as basal and intraformational lenses of quartz-pebble conglomerate with distinctive bluish-gray quartz pebbles, and of basal quartz-granule conglomerate with an ankeritic matrix
- Ym** Mount Holly Complex (Middle Proterozoic)—A unit of mostly metasedimentary and metavolcanic rocks that were pervasively sheared and deformed at high metamorphic grade and later retrograded and locally sheared in the greenschist facies. The metamorphisms were accompanied locally by more or less migmatization and probable metamorphic differentiation and segregation. Feldspathic gneisses and schists are banded and differentiated into light- and dark-colored fractions. Strongly developed foliation, compositional layering, and mineral streaking and augen textures are common in the feldspathic gneisses. Older pods, lenses, and sills of segregated quartz, quartz-tourmaline rock<sup>1</sup>, stringers of vein quartz, and small, irregular bodies of quartz-feldspathic rock and sills of muscovite-bearing granite pegmatite are common. Younger veins of quartz-epidote-carbonate rock are associated with thin-layered mafic gneiss and with calc-silicate lithologies. Higher grade minerals such as garnet (biotite) in pelitic schists and amphibole (clinopyroxene)-calcic-plagioclase in mafic rocks are altered partially to completely to greenschist minerals such as chlorite or chlorite-epidote-carbonate. Tremolite-actinolite-quartz-epidote or talc-chlorite-carbonate is abundant in calc-silicate rocks and marbles. Late trace sulfides are present as cubes, trace Fe oxides are present as octahedra, and trace Fe-carbonate is evidenced by limonite- and pyroclite-stained voids. The formation is mapped in this area as five separate units of distinctive or dominant lithology. These include, from oldest to youngest, hornblende gneiss, schist, enclosing lenses of calc-silicate rock and impure marble, granite gneiss, and vitreous quartzite



EXPLANATION OF MAP SYMBOLS

- Contact—Approximately located. Dotted where concealed
- High-angle fault—Dashed where approximate; U, upthrown side; D, down-thrown side
- Thrust fault—Sawtooth on upper plate
- MAJOR FOLDS**  
(Symbols show approximate location of axial trace of fold, dip of limbs, and plunge direction of axis where known)
- Inclined fold of Fold Set 1; probably Late Proterozoic
- Folds of Fold Set 2; Paleozoic
  - Overturned anticline
  - Overturned syncline
- Folds of Fold Set 3; Paleozoic
  - Anticline
- MINOR FOLDS**
- Axis of fold
- Axis of asymmetric fold—Shows map sense of fold; point of observation is at base of arrow
- Axis of symmetric fold—Shows map sense of fold; point of observation is at base of arrow
- PLANAR FEATURES**  
(May be combined with linear features)
- Strike and dip of beds
- Strike and dip of foliation
  - Inclined
  - Vertical
- Mostly parallel to bedding in cover rocks; parallel to compositional layering in basement paragneiss
- Strike and dip of cleavage
- LINEAR FEATURES**  
(May be combined with planar features)
- Bearing and plunge of lineation—Letter symbol shows elongate element: C, crenulation axis (crinkle lineation); B, biotite patches; H, hornblende needles; M, mica streaks; P, axis of elongate pebble; Q, quartz rod
- OTHER FEATURES**
- Site of photograph in text—Number is text figure number

GEOLOGIC MAP AND CROSS SECTIONS OF THE BIG BRANCH AND PERU PEAK  
WILDERNESSES AND THE WILDER MOUNTAIN ROADLESS AREA,  
RUTLAND AND BENNINGTON COUNTIES, VERMONT